

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2017-79 Date Opened: 26 April 2017 Title: FabricationAircraft OEM: Airbus Helicopters Aircraft Model: AS350/AS355 Product Type: Beams Product Model: Aft RH Quantity: 6**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification (Original)
Time Sheet (R&D)
Notes

Initial or N/A

JC
N/A
JC
JC
N/A
JC
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

JC
JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
78633	1	Aft Beam	JC

Traveller**Component Completion**

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

6
N/A
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Tracking Tags (White) Completed
Parts Placed in Stores for Distribution

Initial or N/A

JC
N/A
N/A
N/A
JC
JC

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

JC
N/A
N/A

Work performed by:

Print: J. Clarke

ICC / Dual Inspection performed by:

Print: J. Rekve

Work Order closed by:

Print: J. Clarke

Approved Manufacturing Facility 73-04

Sign: Sign: Sign: 

Form 2007-03

SCA: AD02

SCA: AD01

SCA: AD02

Date: 30-May-17

Date: 30-May-17

Date: 16-Aug-17

Rev. Original 23 Sep 2014

TASK TAG



Aero Design Ltd.

AMF 73-04

9888A Malaspina Road
Powell River, BC, V8A 0G3
Phone: 604-483-2376
Fax: 604-483-2372
Email: info@aerodesign.ca

Work Order: 2017-79

☐ Copy #:

Copies to be used for completed parts or assemblies

Nomenclature: Aft RH Beam

Total Quantity: 6

Part No.: 78633-01-01

Serial No.: NSN

Batch/PO No.: _____

Manufacturer: ☒ Aero Design Ltd. ☐

Created by: Jeff Clarke

Date: 4/28/2017 SCA: AD02

Closed by: JH/CEL

Date: 16 AUG 2017 SCA: 4002

Task Sheet: AS350 Aft Beams

Work Order: 2017-79

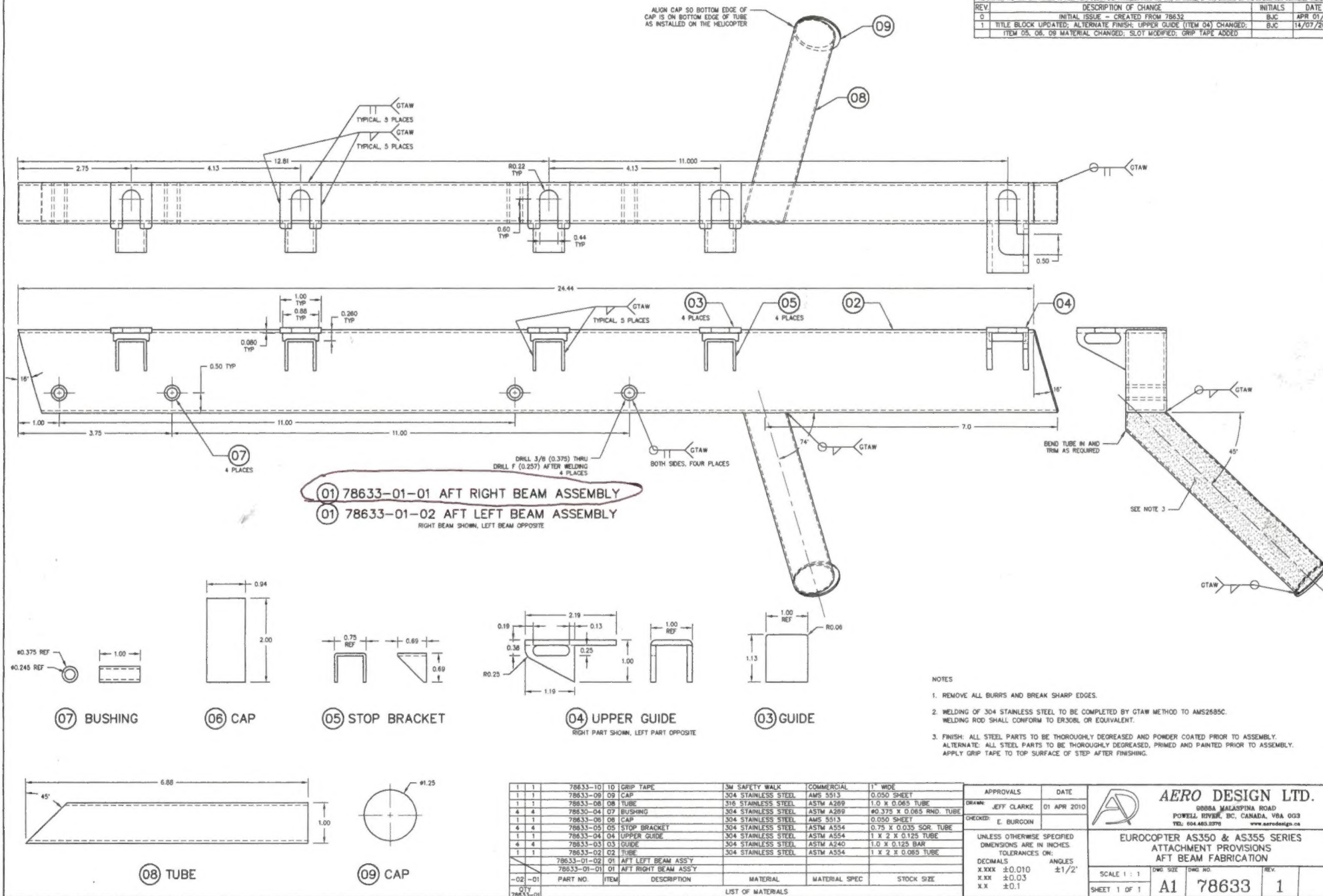
Task #	SCA	SCA	SCA	SCA
1.	Qty: <u>6</u> Date: <u>27 APR 2017</u> AD 73-04 02	Qty: _____ Date: _____ N/A	Qty: _____ Date: _____	Qty: _____ Date: _____
2.	Qty: <u>1</u> Date: <u>28 APR 2017</u> AD 73-04 02	Qty: <u>5</u> Date: <u>2 MAY 2017</u> AD 73-04 02	Qty: _____ Date: _____	Qty: _____ Date: _____
3.	Qty: <u>ALL</u> Date: <u>1 MAY 2017</u> AD 73-04 02	Qty: _____ Date: _____ N/A	Qty: _____ Date: _____	Qty: _____ Date: _____
4.	Qty: <u>1</u> Date: <u>April 31/2017</u> AD 73-04 05	Qty: <u>5</u> Date: <u>May 29/2017</u> AD 73-04 05	Qty: _____ Date: _____	Qty: _____ Date: _____
5.	Qty: <u>1</u> Date: <u>1 MAY 2017</u> AD 73-04 02	Qty: <u>5</u> Date: <u>24 MAY 2017</u> AD 73-04 02	Qty: _____ Date: _____	Qty: _____ Date: _____
6.	Qty: <u>1</u> Date: <u>1 MAY 2017</u> AD 73-04 02	Qty: <u>5</u> Date: <u>26 MAY 2017</u> AD 73-04 02	Qty: _____ Date: _____	Qty: _____ Date: _____
7.	Qty: <u>1</u> Date: <u>May 1/2017</u> AD 73-04 05	Qty: <u>5</u> Date: <u>May 29/2017</u> AD 73-04 05	Qty: _____ Date: _____	Qty: _____ Date: _____
8.	Qty: <u>1</u> Date: <u>16 MAY 2017</u> AD 73-04 02	Qty: <u>5</u> Date: <u>30 May 2017</u> AD 73-04 02	Qty: _____ Date: _____	Qty: _____ Date: _____
9.	Qty: <u>1</u> Date: <u>16 MAY 2017</u> AD 73-04 02	Qty: <u>5</u> Date: <u>30 May 2017</u> AD 73-04 02	Qty: _____ Date: _____	Qty: _____ Date: _____
10.	Qty: <u>1- PAINT</u> Date: <u>16 May 2017</u> AD 73-04 02	Qty: <u>5</u> Date: <u>01 June 2017</u> AD 73-04 02	Qty: _____ Date: _____	Qty: _____ Date: _____

Note: Qty may be left blank if all parts are covered by one stamp.

Continued on back ☐

[illegible]Page 7 of 7

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE - CREATED FROM 78632	BJC	APR 01/10
1	TITLE BLOCK UPDATED; ALTERNATE FINISH; UPPER GUIDE (ITEM 04) CHANGED; ITEM 05, 06, 09 MATERIAL CHANGED; SLOT MODIFIED; GRIP TAPE ADDED	BJC	11/07/2011



1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0295
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-79
6. Item 1.	7. Description RH Aft Beam	8. Part Number 78633-01-01	9. Qty. 1	10. Serial/Batch No. N/A	11. Status/Work New
12. Remarks					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature 		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mm/yyyy) 03 Aug 2017		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mm/yyyy)	
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>					

AIR ZERMAT



Aero Design Ltd.

9888 A Malaspina Rd., Poway, CA 92121
V8A 0G3, 604-483-AERO (2376)

Quantity:

1

PN:

78633-01-01

Aircraft:

Eurocopter

Model: AS350/355

Description:

R.H. AFT Beam

Supplier:

Aero Design

Color:

White

WO#:

2017-79

PO# N/A

03/08/17



WO# _____

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0283
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-79
6. Item 1.	7. Description RH Aft Beam	8. Part Number 78633-01-01	9. Qty. 1	10. Serial/Batch No. N/A	11. Status/Work New
12. Remarks Black					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature  AD 73-04 02		13c. Approved Organization Number AMF 73-04		14b. Signature 14c. Approved Organization Number	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 03 Aug 2017		14d. Name 14e. Date (dd/mmm/yyyy)	
Installer Responsibilities This certificate does not constitute authority to install. Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified. Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.					

MAVERICK AIR

Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:	1	
	78633-01-01	
Craft:	Eurocopter	Model: AS350/355
Description:	R.H. AFT Beam	
Supplier:	Aero Design	
Color:	White	
WO#:	2017-79	PO# N/A



MAVERICK AIR
03/08/17

Description: AS350 RH Beams

WO#

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: Upper Guide No. of pieces: 20

Manufacturer: Aero Design

Part No.: 78633-04-01 Serial / Batch No.: N/A

TTSN: NP TSO: N/A Rem.: N/A

Work Order No.: 2016-16

Remaining Tasks to be Performed: _____

Signature: CH/CL

Date: 11 FEB 2016 Lic. No. / SCA AD02

Form# 20.E.03 Rev. 1 24 April 2014

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

In Process

Remarks

Material PO# 15024

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0258
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-79
6. Item 1.	7. Description RH Aft Beam	8. Part Number 78633-01-01	9. Qty. 1	10. Serial/Batch No. N/A	11. Status/Work New
12. Remarks					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature 		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 05 July 2017		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mmm/yyyy)	
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>					

Arrow Helicopters



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity: 1

PN: 78633-01-01

Aircraft: Eurocopter

Model: AS350/355

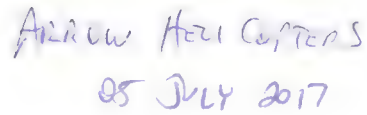
Description: R.H. AFT Beam

Supplier: Aero Design

Color: White

WO#: 2017-79

PO# N/A

WO#

Rev. Original 27 May 2013

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0254
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-79
6. Item 1.	7. Description RH Aft Beam	8. Part Number 78633-01-01	9. Qty. 1	10. Serial/Batch No. N/A	11. Status/Work New
12. Remarks					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12. Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature  AD 73-04 02		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 05 July 2017		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mmm/yyyy)	
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>					

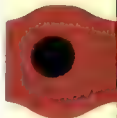
ARROW HELI COPTERS



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:	1	
PN:	78633-01-01	
Aircraft:	Eurocopter	Model: AS350/355
Description:	R.H. AFT Beam	
Supplier:	Aero Design	
Color:	White	
WO#:	2017-79	PO# N/A



05 July 2017



Aero Design

Parts Distribution Sheet

Description: AS350 RH Beams

WO# _____

[illegible]

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0230	
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-79	
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial/Batch No.	11. Status/Work	
1.	RH Aft Beam	78633-01-01	1	N/A	New	
12. Remarks						
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.				14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature  73-04 02		13c. Approved Organization Number AMF 73-04		14b. Signature		14c. Approved Organization Number
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 12 June 2017		14d. Name		14e. Date (dd/mmm/yyyy)
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>						

HELI - ALPES



WO# 2017-97 RH

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0196
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-79
6. Item 1.	7. Description RH Aft Beam	8. Part Number 78633-01-01	9. Qty. 1	10. Serial/Batch No. N/A	11. Status/Work New
12. Remarks					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations .		
13b. Signature  AD 73-04 02		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 29 May 2017		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mmm/yyyy)	
<p align="center">Installer Responsibilities</p> <p>This certificate does not constitute authority to install.</p> <p>Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified.</p> <p>Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.</p>					

HELITECNIA SPAIN



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: AS350 AFT R/H BEAM No. of pieces: 1

Manufacturer: Aero Design Ltd.

Part No.: 78633-01-01 Serial/Batch No.: NA

TTSN: NA TSO: NA Rem.: NA

Work Order No.: 2017-79

Remaining Tasks to be Performed: Straighten, clean up,
inspect, powder coat.

Signature: Dan Murphy

Date: May 1/2017 Lic. No. / SCA AD-05

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process



Description: AS350 RH Beams

WO# _____

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013

MOUNTING BEAM FABRICATION – 78633

General

These instructions apply to mounting beams 78633-01 (aft) for AS350/AS355 cargo baskets. Refer to the following drawings, at the current revision, for dimensions and details:

78633 – Aft Beam

Work Order: 2017-79

Batch Quantity: 6 RA
(5 max, use additional sheets for more)

Complete
(initial or SCA #)

Date Open: 28 APR 2017

#1 #2 #3 #4 #5

1. Beam Fabrication – 1x2 tubes

- Cut 1 x 2 x 0.065 material as indicated on drawings.
 - 78633-02 – 24.44"
- Cut 1 x 2 x 0.120 material @ 16.38" long for upper guide (10).
- Record material PO on attached material list.
- De-burr cut ends using a sanding disc on a die-grinder. De-burr inside with de-burring tool.
- Remove writing on tubes with acetone.
- Tag in-progress parts and place on in-progress shelf in machine shop for CNC machining of keyways, slots, and bushing holes.

2. CNC Machining

- Run CNC programs to machine slots and holes in 78633-02 tubes.
- Run CNC programs to machine blanks for upper guides.
- De-burr slots and holes.
- Tag in-progress parts and place on in-progress shelf in welding shop for welding.

3. Beam Fabrication – Components

Note: Some components are used for many different beams and are made in batches on separate component work orders. Check stock before making components.

- Shear caps from 0.025" sheet: 78633-06
- Cut 78633-03 guides from 1x1/8 stock.
- Cut and turn 78630-04 bushings from 3/8 x 0.065 tube.
- Cut 78633-04 upper guides from blanks machined in step 2.b.
- Cut 78633-05 stop brackets from 0.75 x 0.065 tube.
- Cut 82735-03 step tubes from 1.0 x 0.035 tube.
- Punch 82735-06 step cap from 0.050 sheet, 1.25 diameter. Flatten on steel table with a hammer.
- Record component POs / WOs on attached material list and place on in-progress shelf in welding shop.

4. Beam Welding

- a. TIG weld 78633-03 guide, 4 places, and 78633-04 upper guide into 78633-02 tubes using ER308L rod.
 - i. Clamp two beams back to back with 1/8" spacer in middle to pre-stress beams prior to welding.
- b. Record component and welding rod POs / WOs on attached material list.
- c. Tag in-progress parts for straightening.

5. Beam Straightening

Welding on one side of the beam causes the beam to curve. Beams must be straight prior to machining slots.

- a. Set beam on blocks as far apart as possible on hydraulic press.
- b. Use a 2" block to distribute press loads.
- c. Gradually work up to pressure required to make beam straight, usually about 800 psi is required. The same pressure generally works for beams from the same batch.
- d. Check for straight with a straight edge on back of tube.
- e. 78633-01 aft beams may require straightening on side as well, repeat steps a-d on side, using about 600 psi.
- f. Tag in-progress parts and place on in-progress shelf in CNC shop for machining.

6. CNC Machining

- a. Run CNC programs to machine keyways and slots in 78633-02 tubes with guides welded in place, after straightening.
- b. De-burr keyways and slots.
- c. Tag in-progress parts and place on in-progress shelf in welding shop for welding.

7. Beam Welding

- a. Peg step: TIG weld 82735-06 cap to 82735-03 tube using jig to align cap to tube.
- b. TIG weld 78633-04 bushings into 78633-02 tube using ER308L rod, four places per tube, both sides.
- c. TIG weld 78633-05 stop bracket to 78633-02 tube using ER308L rod, four places per tube, both sides. Use jig to align stop brackets for height and position.
- d. TIG weld 78633-06 cap to 78633-02 tube.
- e. TIG weld step tube assembly from a. to back of 78633-02 tube using jig for alignment. Weld around step tube as far as possible, then close out tube by flattening protruding edge of step tube with a hammer. Complete weld after flattening.
- f. Record component and welding rod POs / WOs on attached material list.
- g. Tag in-progress parts and place on in-progress shelf in welding shop for straightening.

8. Beam Finishing _____

Welding on one side of the beam causes the beam to curve. Beams must be straight prior to powder coating.

- a. Set beam on blocks on hydraulic press. Straightening in sections may be required depending on severity of curve.
- b. Use a 2" block to distribute press loads.
- c. Gradually work up to pressure required to make beam straight, usually about 800 psi is required. The same pressure generally works for beams from the same batch.
- d. Check for straight with a straight edge on back of tube.
- e. 78633-01 aft beams may require straightening on side as well, repeat steps a-d on side, using about 600 psi.
- f. Drill out bushings to F (0.257"), four places per beam, on drill press.
- g. Break sharp edges on stops and flatten bushing locations using sanding disc on die-grinder.
- h. Tag in-progress parts and place on in-progress shelf in welding shop for inspection.

9. Final Inspection _____

To be completed by a different person than the previous steps.

- a. Inspect beams 78633-01-XX for conformity to drawings.
- b. Tag in-progress parts ready for powder coating.

10. Powder Coating _____

- a. Parts are to be powder coated in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag in-progress parts ready for final assembly.

11. Final Assembly _____

To be completed after powder coating.

- a. Prepare step tube for grip tape by rubbing top surface with scotch-brite.
- b. Adhere 1" 3M Safety-Walk grip tape to top surface of step tube.
- c. Adhere P/N placard to back surface of beam.
- d. Ensure AN4 bolt can be inserted through bushings.
- e. Green tag complete beam assembly and place into stock.

Work Order: 2017-79Material Tracking Sheet
Eurocopter AS350/AS355 Aft Mounting Beam

1 of 2

Date Opened: 26 APR 2017

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>6</u>		<u>78633-01-01</u>	Aft Beam Assembly	(XX = <u>-01 RH</u> , -02 LH)	
Step 1				<i>Fabrication</i>		
	.1		78633-02	Tube	1x2x0.065 Tube, 304 Stainless Steel	(5) (1) 16024/15054
40 → total	.1		78633-04	Upper Guide	1x2x0.12 Tube, 304 Stainless Steel	15073/2016-16 (1)
Step 2				<i>Machning</i>	<i>None</i>	
Step 3				<i>Fabrication</i>		
	.4		78633-03	Guide	1x0.125 Bar, 304 Stainless Steel	16058
	.4		78633-05	Stop Bracket	0.75x0.065 Sqr. Tube, 304 Stainless	17005
	.1		78633-06	Cap	0.025" Sheet, 321 Stainless Steel	3021
	.4		78630-04	Bushing	0.375 x 0.065 Tube, 304 Stainless Steel	15073
	.1		82735-03	Tube	1.0 x 0.063 1.0 x 0.035 Tube, 316 Stainless Steel	17005
	.1		82735-06	Cap	0.050 Sheet, 321 Stainless Steel	3021/10037 (1) (5)
Step 5				<i>Welding</i>		
	A/R			Welding Rod	ER308L	14028
Step 7				<i>Straightening</i>	<i>None</i>	
Step 8				<i>Machning</i>	<i>None</i>	
Step 9				<i>Welding</i>		
	A/R			Welding Rod	ER308L	14028
Step 11				<i>Finishing</i>	<i>None</i>	
Step 12				<i>Final Inspection</i>	<i>None</i>	
Step 13				<i>Powder Coating</i>		17054 (5)
		Detail				

Work Order: 8017-79Material Tracking Sheet
Eurocopter AS350/AS355 Aft Mounting Beam

2 of 2

Date Opened: 26 APR 2017

Ass'y Step	Qty	Drawing	Part Number	Description	Material	PO/WO
Step 14				<i>Final Assembly</i>		
	. 1		--	Grip Tape	1" 3M Safety Walk	
	. 1		--	P/N Placard	TZ tape, 1/2", white on black	

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2017-80 Date Opened: 26 April 17 Title: FabricationAircraft OEM: Bell Aircraft Model: 205/212 Product Type: Cargo Deployment Arm Product Model: Bushings Quantity: 1/1**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification
Time Sheet (R&D)
Notes

Initial or N/A

JC
N/A
JC
N/A
N/A
JC
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JC
N/A

Drawing List

Drawing #	Rev #	Description	Initial or N/A
79237	1	Bushings	JC

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

1/1
N/A
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

Initial or N/A

JC
N/A
N/A
N/A
N/A

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JC
N/A
N/A

Traveller

Initial or N/A

Work performed by:

ICC / Dual Inspection performed by:

Work Order closed by:

Form 20.D.03

Print: J. ClarkePrint: N/APrint: J. Clarke

Rev. Original 23 Sep 2014

Sign:

Sign:

Sign:

SCA: AD02SCA: SCA: AD02Date: 26-Apr-17Date: Date: 26-Apr-17

1. Approving Civil Aviation Authority/Country Transport Canada		2. AUTHORIZED RELEASE CERTIFICATE FORM ONE			3. Form Tracking No. 2017-0165
4. Organization Name and Address AERO Design Ltd. – 9888A Malaspina Road, Powell River, BC, V8A 0G3					5. Work Order/Contract/Invoice WO 2017-80
6. Item	7. Description	8. Part Number	9. Qty.	10. Serial/Batch No.	11. Status/Work
1.	Bushing	79237-01	1	NSN	New
2.	Bushing	79237-02	1	NSN	
12. Remarks					
13a. Certifies that the items identified above were manufactured in conformity to: <input checked="" type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in block 12.			14a. <input type="checkbox"/> CAR 571.10 Maintenance Release <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, has been performed in compliance with the Canadian Aviation Regulations.		
13b. Signature 		13c. Approved Organization Number AMF 73-04		14b. Signature	
13d. Name Jeff Clarke - AD02		13e. Date (dd/mmm/yyyy) 26 Apr 2017		14c. Approved Organization Number	
				14d. Name	
				14e. Date (dd/mmm/yyyy)	
Installer Responsibilities					
This certificate does not constitute authority to install. Installers working in accordance with the national regulations of a country other than that specified in block 1 must ensure that their regulations recognize certifications from the country specified. Statements in blocks 13a or 14a do not constitute installation certification. In all cases, the technical record for the aircraft must contain an installation certification issued in accordance with the applicable national regulations before the aircraft may be flown.					

WILD CAT

BUSHING/TUBE/GUIDE/THREADED LUG

General

These general instructions apply to bushings, tubes and similar round components used for Aero Design cargo baskets, mounting beams, and other products. Refer to the drawing, at the current revision, for dimensions and details. Selected drawings with applicable parts, drawings not listed may also apply:

69830 – Bell 206L/407 Mounting Beam
76630 – Bell 206L/407 High Mounting Beam
78633 – Airbus AS350 Aft Beam
78634 – Airbus AS350 Forward Beam
49215 – Lid Prop Bushing
49216 – Lid Prop Bushing

76423 – Airbus AS350 Attachment Hoop
94023 – Airbus AS350 XL Attachment Hoop
82715 – Airbus AS350 Short Step Assembly
82733 – Airbus AS350 Short Step Bracket
36274 – Handle Lever Bushing
36275 – Handle Support and Bushing

Work Order: 2017-75 2017-80 JK.

Batch Quantity: 1/1

Complete
(initial or SCA #)

Date Open: 2e Apr 2017

Part Number: 79237-01
-02

AO
73-04
02

1. Cut stock material:

- Enter material PO:
- Cut stock to length, + 0.03-0.06".
- Tag in-progress parts and place on in-progress shelf in machine shop.

PO: 618 17017
3/E 13050

AO
73-04
02

2. Turn stock material:

CAUTION: Using a lathe requires training and is not to be undertaken without adequate instruction and knowledge of the processes and settings involved. Do not attempt to fabricate parts on the lathe if you are unsure of what is required to safely produce the part.

Note: Not all steps may apply to all parts. Strike out any step(s) that does not apply.

Note: Feeds and speeds are recommended starting point for aluminum, steel, and stainless steel up to 1" in diameter using the appropriate inserts. Adjust for optimal performance and finish.

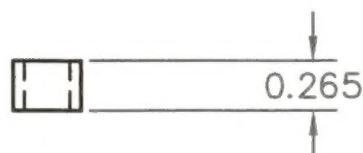
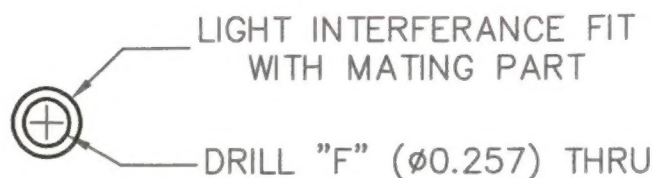
- Face one end flat @ 1000 RPM, cross feed @ 0.01"/rev roughing, 0.004"/rev finishing.
- Turn outside @ 1000 RPM, feed @ 0.01"/rev roughing, 0.004"/rev finishing.
- Centre drill and drill at 300 RPM (up to 5/16", reduce for larger sizes).
- Setup stop and face other end to length @ 1000 RPM.
- De-burr outside with a file and inside with a de-burring tool at 300 RPM.
- Tag complete parts.

2017-75 2017-80 JC.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	ADDED FIT TOLERANCE	RR	30/12/08

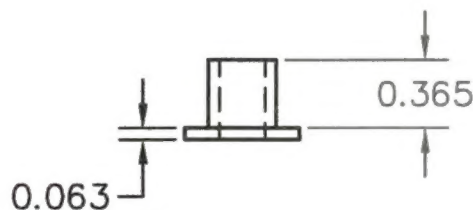
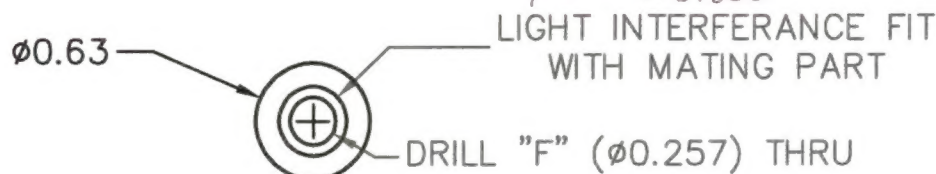
1 each

$\phi 0.375 \begin{matrix} +0.003 \\ -0.000 \end{matrix}$



01 BUSHING

$\phi 0.375 \begin{matrix} +0.003 \\ -0.000 \end{matrix}$



02 BUSHING

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.

79237-02	02	BUSHING	BRASS ROD		Ø .63 MIN
79237-01	01	BUSHING	BRASS ROD		Ø .38 MIN
PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE

LIST OF MATERIALS

THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREIN.	APPROVALS		DATE	AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 www.aerodesign.ca			
	DRAWN: R. RATHWELL		22/04/08				
	CHECKED: E. BURGAIN			BELL 212, 412, 205A-1, 205B CARGO DEPLOYMENT ARM BUSHINGS			
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1						
			SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.	
			SHEET 1 OF 1	A4	79237	1	



WO# 2017-75 2017-80 R.

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013